REMARKS

Claims 1-29 are pending in the present application. The Examiner rejected claims 1-29 under 35 U.S.C. §102(f). The Examiner requested clarification as to the inventive entity of claims 1-29. The Examiner also rejected claims 1-29 under 35 U.S.C. §101 as claiming the same invention as that of claims 1-29 of USP 6,498,946.

Regarding the Examiner's rejection of claims 1-29 under 35 U.S.C. §102(f), Applicant hereby advises the Examiner that the present application was electronically filed on October 5, 2001. During that electronic submission, however, inadvertent errors were made resulting in an incorrect Declaration erroneously being filed with the application. Moreover, the data entered during the EPAVE submission resulted in erroneous inventor identification. As a result, the inventors listed in the application data transmittals as well as those identified in the Declaration that accompanied the application were incorrect. Accordingly, Applicant directs the Examiner's attention to the Declaration enclosed herewith properly identifying the inventors of the presently claimed invention as Thomas K. F. Foo and Zahi A. Fayad. A Request for Correction of Inventorship is also enclosed.

Regarding the Examiner's concerns regarding resolution of the issue of priority under 35 U.S.C. §102(g) and possibly 35 U.S.C. §102(f), Applicant respectfully refers the Examiner to the remarks set forth above wherein the proper inventive entity was set forth, namely, identifying Thomas K. F. Foo and Zahi A. Fayad as the inventors of the presently claimed invention.

The Examiner also rejected claims 1-29 under 35 U.S.C. §101 as claiming the same invention as that of claims 1-29 of USP 6,498,946. As such, Applicant has amended claims 1, 8, 10, 12, 15, 19, 21, and 28 such that the claims of the present application are no longer co-extensive in scope with the claims of USP 6,498,946. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1-29 under 35 U.S.C. §101.

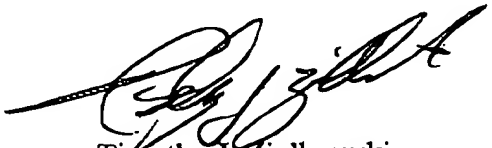
Therefore, in light of the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-29.

Marked-up versions of the amendments made above may be found on pages 6 and 7.

Applicant hereby authorizes charging of deposit account no. 07-0845 for any fees associated with entering this amendment including any fees under 37 CFR §1.16 and 1.17.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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REVISIONS

A1

1. (Once Amended)A method of multi-slice ~~fast spin echo~~ image acquisition with black-blood contrast comprising:

applying a non-selective inversion pulse;

applying a re-inversion pulse that is slice-selective over a region encompassing a plurality of slice selections;

timing execution of a series of RF excitation pulses ~~with fast spin echo readout~~ such that signal from blood is near a null point; and

acquiring data for the plurality of slice selections.

A2

8. (Once Amended)The method of claim 1 wherein the series of RF excitation pulses is fast spin echo readout pulses and wherein the method further comprisinges modifying a flip angle of RF excitation pulses executed before and after an occurrence of the null point of the blood to improve blood suppression.

A3

10. (Once Amended)A computer program ~~for multi-slice coverage in a single acquisition with black-blood T_2-weighted image contrast, the computer program~~ having a set of instructions that when executed by a computer cause the computer to:

generate and cause application of a non-selective inversion RF pulse to a slab of slices each having ~~a predefined~~ thickness;

generate and cause application of a slice-selective re-inversion RF pulse having a slice thickness greater than the ~~predefined~~ thickness of a single slice;

apply an inversion time ~~so that a null point of blood within the slab occurs in a middle of an acquisition segment~~;

apply ~~a series of~~ RF excitations ~~pulses~~; and

acquire MR data ~~for each slice in the slab~~.

A4

12. (Once Amended)The computer program of claim 10 wherein the RF excitations ~~pulses~~ have a flip angle greater than 90° for segments after thea null point and less than 90° for segments before the null point.

15. (Once Amended) An MR apparatus to produce consistent contrast in ~~FSE~~ image acquisition comprising:

a magnetic resonance imaging (MRI) system having a plurality of gradient coils positioned about a bore of a magnet to impress a polarizing magnetic field and an RF transceiver system and an RF switch controlled by a pulse module to transmit RF signals to an RF coil assembly to acquire MR images; and

a computer programmed to apply a pulse sequence having:

A5

a non-selective inversion pulse to invert spins in a longitudinal direction across an entire slab of slices;

a slice-selective re-inversion pulse having an implied width at least as large as that of the non-selective inversion pulse; and

a series of excitation pulses ~~having fast spin echo readout~~ spaced apart from the slice-selective re-inversion pulse by an inversion time ~~to acquire data for each slice in the slab~~.

19. (Once Amended)The MR apparatus of claim 18 wherein the series of excitation pulses is of a fast spin echo readout type and have therein excitation pulses with differing flip angles.

A6

21. (Once Amended)A pulse sequence for use in multi-slice MR data acquisition comprising:

A7

a non-selective inversion pulse applicable to a slab of slices;

a slice-selective re-inversion pulse applicable to at least a number of slices in the slab of slices; and

a series of ~~fast spin echo readout~~ excitation pulses applicable to the at least a number of slices in the slab of slices after an inversion time.

28. (Once Amended)The pulse sequence of claim 21 wherein the series of ~~fast spin echo readout~~ excitation pulses have varying flip angles and are fast spin echo readout excitation pulses.

A8